SPECIES VIABILITY EVALUATIONS
Frequently Asked Questions
White Mountain and Green Mountain National Forests

What is a species viability evaluation?
It is a qualitative process for gathering information on species for which viability may be a concern now or during the next 10-20 years. The process includes identifying at-risk species, compiling literature and unpublished information on those species, and using that information to develop and analyze Forest Plan revision alternatives. Earlier in Forest Plan revision, this process was known as a population viability assessment or PVA. This name has been changed to alleviate confusion with the scientific, quantitative population viability analysis, which is also known as a PVA.

What does viability mean?
According to the Committee of Scientists' Report (1999), a viable species is one consisting of self-sustaining and interacting populations that are well-distributed throughout the species' range. Self-sustaining populations are those that are sufficiently abundant and have sufficient diversity to display the array of life history strategies and forms to provide for their long-term persistence and adaptability over time. The definition of the term well-distributed can vary based on current, historic, and potential population and habitat conditions. Maintaining viability is a means of ensuring, as much as possible, that a species will not go extinct in the foreseeable future.

What is an acceptable level of assurance of viability?
Because species and their environments are dynamic, there is not a single population size above which a species is viable and below which it will become extinct. Viability is best expressed as a level of risk of extinction. The acceptable level of risk must be determined through the revision process.

What types of species were included in the SVE?
The 1982 and 2000 planning regulations both require that viability be maintained for native and desired non-native species. Native species are species that historically occurred naturally the planning area. Desired non-native species are those species that are not native to an area but are valued for their social, cultural or economic value. The White Mountain and Green Mountain National Forests considered vertebrate and invertebrate wildlife, vascular plants, and some mosses in the process.

How were species chosen for the SVE?
First, existing lists or other compilations of potentially rare species in New England were reviewed. From these, two large lists (one for animals, one for plants) of species that might be at-risk were developed. Information on the range, status, known locations, habitat needs, and threats of each species was gathered. Based on this information, some species were identified for definite inclusion in the SVE, while others were proposed to drop from further consideration. Experts at Maine Inland Fisheries and Wildlife, New Hampshire Fish and Game, and the Vermont Fish and Wildlife Department reviewed the animal list, while experts at the Maine Natural Areas Program, New Hampshire Natural Heritage Inventory, Vermont Non-game and Natural Heritage Program, and New England Wildflower Society reviewed the plant list. These people provided additional information on many species, identified species likely to occur on the White Mountain or Green Mountain NF for which they have viability concerns, and recommended additional contacts for species about which they had little information. Additional experts, including academicians and consultants, were consulted as needed to gather enough location and status information on each species to allow for an initial determination on whether a viability concern exists or may develop

in the next 10-20 years. A determination on inclusion in the SVE process was made for each species on each Forest, based on the information gathered.

The reasons for including many species in the viability evaluation are:

- Species is federally listed as endangered or threatened and identified by the U.S. Fish and Wildlife Service as a species to be address by the White Mountain or Green Mountain NF
- Species is listed as a Regional Forester's sensitive species for the White Mountain or Green Mountain NF
- Species is state listed as endangered or threatened and known or likely to occur on the White Mountain or Green Mountain NF in the state in which is it listed
- Species has a state Heritage ranking of S1 or S2 and is known or likely to occur on the White Mountain or Green Mountain NF in the state with that ranking

The reasons for excluding many species from the viability evaluation are:

- Species range does not include the White Mountain or Green Mountain NF
- Species' habitat does not occur on the White Mountain or Green Mountain NF or is so limited as to make species occurrence unlikely
- State Heritage ranking of S4 or S5 (apparently secure or secure) in New Hampshire and Maine for the White Mountain National Forest and Vermont for the Green Mountain National Forest, unless other information indicates substantial near-term risk
- Species considered extirpated from New Hampshire and Maine for the White Mountain National Forest and Vermont for the Green Mountain National Forest

Not all of these reasons are absolute, nor do they address all species. The decision to include or exclude many species from the viability evaluation was based on best judgment, given available information, of the status of the species and whether it is likely to occur on the White Mountain or Green Mountain National Forests. Some species are naturally rare, but have stable populations; most of these were not included. Other species may occur near one or the other Forest, but are not likely to occur on Forest due to limited habitat or range limitations; these species were not included. Migratory species that only use the Forest(s) during the winter were usually not included. Some species that are currently considered common but are experiencing dramatic declines were included due to concern for their viability in the next 10-20 years.

What information was used to evaluate viability for these species?

Current literature on species was compiled and reviewed. As literature reviews were completed for the species identified for inclusion in the SVE, the list was reassessed. Information gathered indicated that some species on the initial list are not truly at-risk or are not likely to occur on the Forests. Next, scientists and others with expertise and local knowledge of the species were asked to participate on informal panels to gather unpublished data and other information to supplement the literature review findings. They were asked to provide input on which species are truly at-risk based on their knowledge of species and habitat conditions.

All of the information gathered through literature reviews and panels was used to evaluate current and future viability risks for these species. The extent of information available about species, their habitats, and the ecological conditions needed to support them was identified. When detailed information on species habitat relationships, demographics, genetics, and risk factors was available, that information was used; when it was not available, general conservation principles and input of local experts were relied on. A final list of the species whose viability was considered to be at the greatest risk, either as a species or on a Forest, was developed for each Forest based on all the information available.

How was viability information incorporated into the Forest Plan revision effort?

Information gathered was used to develop conservation approaches to address identified risk factors. These approaches included land allocations, standards, and guidelines to eliminate or mitigate viability risks. Once the alternatives were developed, information gathered during the SVE was used to evaluate the potential effects of each alternative on the species of potential concern. This analysis is document in the DEIS and Biological Evaluation for each Forest.